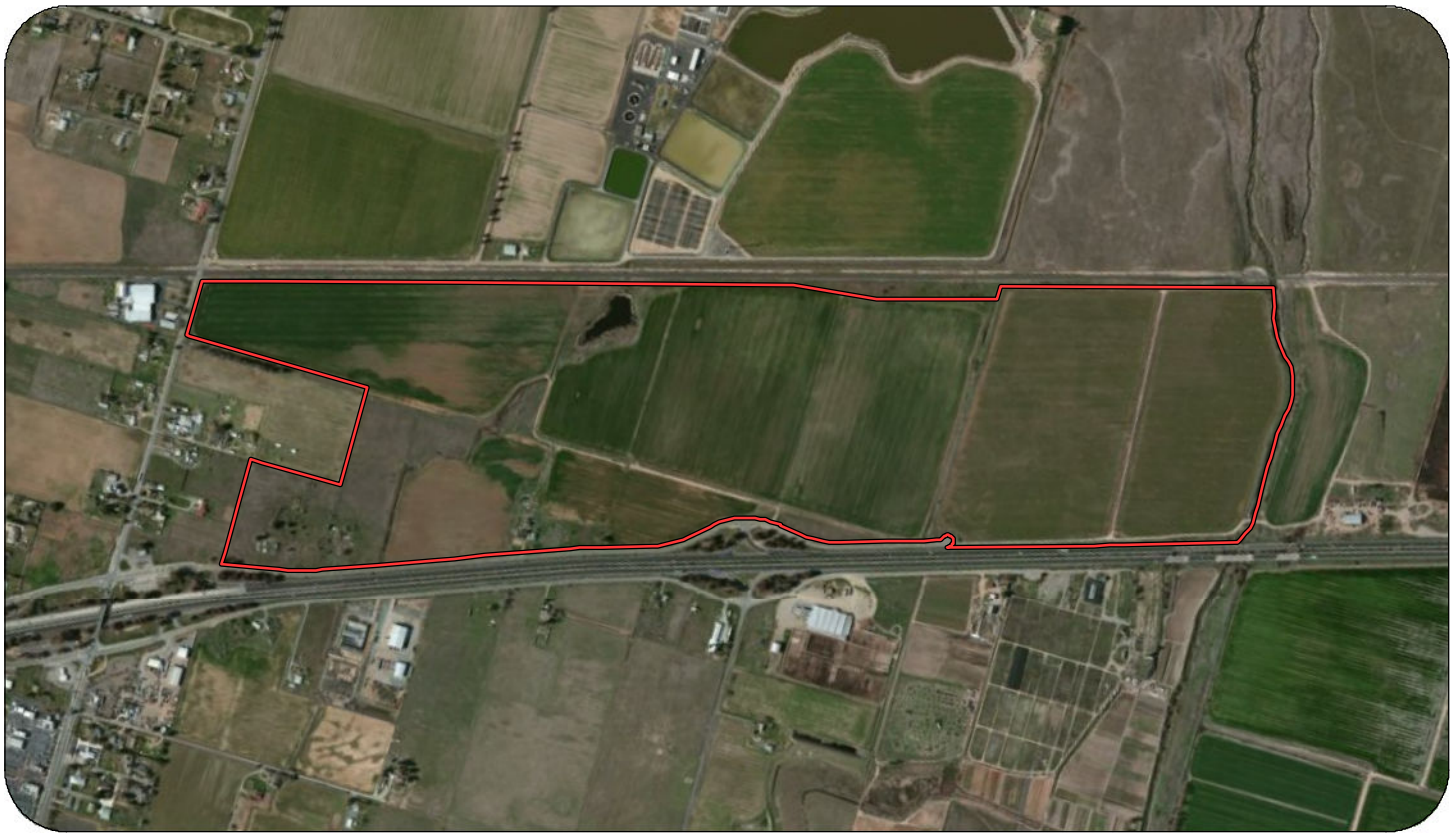
APPENDIX R

LIMITED PHASE II SAMPLING PLAN



LIMITED PHASE II SAMPLING PLAN
WILTON RANCHERIA
TWIN CITIES SITE

JUNE 2015

PREPARED FOR:

Wilton Rancheria, California
9728 Kent Street
Elk Grove, CA 95624
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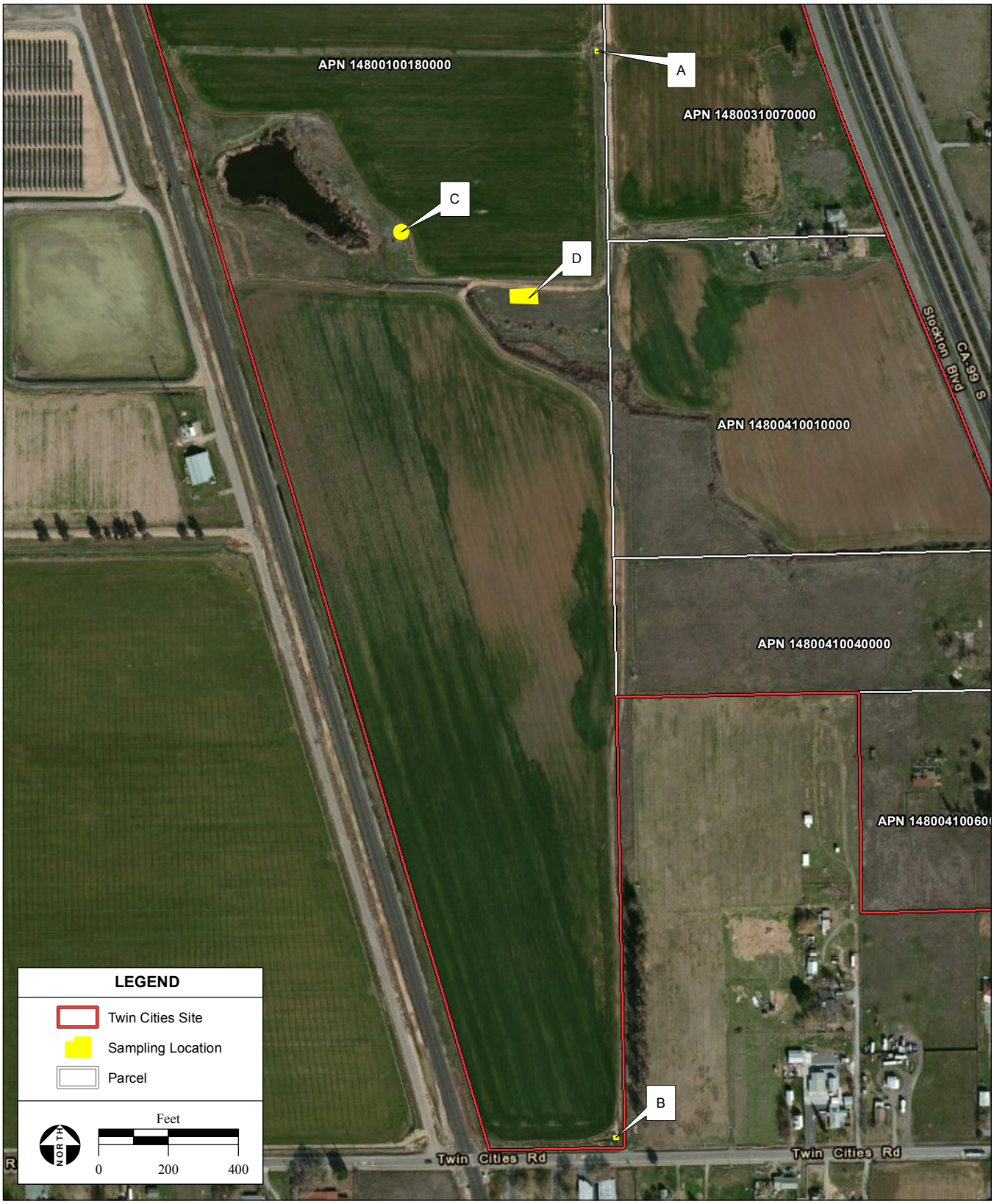
1.0 INTRODUCTION

Analytical Environmental Services (AES) has prepared this work plan to conduct limited soil sampling on the Wilton Rancheria's proposed site for construction of a gaming facility. The Twin Cities site (referred to hereinafter as the "Subject Property") is approximately 282 acres (Sacramento County Assessor's Parcel Numbers (APNs) 148-0010-018, 148-0041-009, 148-0041-006, 148-0041-004, 148-0041-001, 148-0031-007, and 148-0010-060) and located 0.2 miles north of the City of Galt in unincorporated Sacramento County, California. The Subject Property is situated within Section 3, Township 5 North, Range 6 East, of the Galt, Sacramento, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (quad), and is within the Mt. Diablo Baseline and Meridian. The Subject Property is immediately west of State Route 99 (Highway 99) and West Stockton Boulevard, and is bound by Twin Cities Road to the south, by Laguna Creek to the north, and by the Union Pacific Railroad to the west. Access to the Subject Property is provided by Twin Cities Road and West Stockton Boulevard. The Subject Property is approximately 41 feet above mean sea level (amsl). The Subject Property is relatively flat and typically exhibits slopes of less than 1 percent. With the exception of extreme northern portion of the property, the site is located within the City of Galt Sphere of Influence (SOI) area. Soils affected by petroleum products and/or hazardous constituents may be present on the Subject Property. This work plan presents a limited Phase II sampling protocol for collecting soil samples on the Subject Property to confirm the presence or absence of hazardous materials or petroleum products and, if present, provide preliminary data in support of developing a remediation strategy.

1.1 POTENTIAL CONTAMINATION

A site survey was conducted and the following issues that require additional study were identified: 1) leaking fluids from two water pumps (assumed to be petroleum products) and associated stained soils, 2) household/agricultural waste and metal debris associated with an on-site disposal pit, including approximately 5 empty 55-gallon drums, and 3) soil discoloration associated with on-site agricultural operations. These items were located in four distinct locations (**Figure 1**) on the Subject Property as follows:

- Location A – Southwestern area adjacent to Twin Cities Road (leaking water pump with oil-stained soils)
- Location B – South-central area on the west side of the north to south running field road, northeast of the pond (water pump with oil-stained soils)
- Location C – South-central area on the east side of the central pond (household/ agricultural waste dump site)
- Location D – South-central area east of the irrigation canal on the southern side of the field road (possible agricultural processing area)



SOURCE: Microsoft aerial photograph, 2/2/2012;
Sacramento County GIS 2012; AES, 2015

Figure 1
Proposed Sampling Locations

The leaking water pumps at Locations A and B had stained soils that appear to be petroleum products that may have leaked from the irrigation pumps, which represent a small area on the soil surface. Location C contained various metal household waste materials that have been dumped in a large pit-type area. All of the empty 55-gallon drums observed on site were empty and corroded. Location D is a bare area that appeared to contain some powder residue that may be evidence of chemical mixing. The current resident farmer was asked about pesticide and fertilizer use and stated that to his knowledge, no pesticides have been mixed on the property within the last 12 years (Pellandini, 2015). He indicated the powder residue may be UN-32, a fertilizer consisting of 45 percent ammonium nitrate, 35 percent urea, and 20 percent water (Pellandini, 2015).

1.2 SITE HISTORY

The Subject Property has been used for agricultural row crop farming and general agricultural purposes for several decades. The majority of the Subject Property is currently in planted row crops consisting of seed corn and Sudan grass. Several unused outbuildings and livestock sheds are located on areas of the Subject Property.

A review of historic aerial photographs confirms long-term prior agricultural activities on the Subject Property. The following aerial photographs were available for review: 1937 (1"=800'), 1952 (1"=800'), 1957 (1"=800'), 1964 (1"=800'), 1971 (1"=800'), 1984 (1"=800'), 1993 (1"=500'), and 1998 (1"=800'). Aerial photographs were of varying scale and clarity. Historical aerial images offer detailed review of previous land uses on the Subject Property and adjacent properties. All of the images show a structure on the Subject Property near the parcel line dividing APNs 148-0041-004 and 148-0041-001; the rest of the Subject Property appears to be have been used for agriculture.

As noted above, soil staining was observed within two small areas where irrigation pumps are oiled for maintenance. Incidental spillage and leaking of lubrication oils is assumed to be the source of potential contamination. There are no records or indications that bulk agricultural chemicals were stored on-site. The household/agricultural waste dumping site appears to be an older dumping site, as all of the metal materials are corroded from weather.

2.0 PROPOSED SAMPLING ACTIVITIES

2.1 SAMPLING METHODOLOGIES

Soil sampling will be conducted at locations as shown on **Figure 1**. Sampling locations will be identified in the field with a GPS unit. Samples will be collected using disposable six-ounce polyethylene scoops and nitrile gloves. A new scoop will be utilized for each sample. The sample methodologies were developed to confirm the presence of hazardous materials or petroleum products and, if present, provide preliminary data concerning the extent of soil

contamination in order to develop a Phase II Site Assessment and associated work plan for soil remediation.

SOIL STAINING NEAR WATER PUMPS

Sampling of stained soil areas near the water pumps at Locations A and B will entail collecting three samples from each water pump site to confirm presence of petroleum products, determine if subsurface seepage of petroleum products has occurred, and provide a baseline for soils near the stained areas. The first sample will be collected from surface scrapings of the top 3 inches of the visible stained soils. The second sample will be collected in the same location after the soil has been excavated until no visible staining is present. A third sample will be collected from surface scrapings of an area of similar soils types that does not exhibit visible staining. Soil samples collected near the water pumps will be analyzed for total petroleum hydrocarbons as gasoline (TPH-g) and diesel fuel (TPH-d) benzene, toluene, ethylbenzene, and xylenes (BTEX) and motor oil. Soil sampling constituents, analytical methods, and detection limits are listed in **Table 1**. Sampling results will be compared to the USEPA Preliminary Remedial Goals (PRGs) and the Central Valley Regional Water Quality Control Board (CVRWQCB) Environmental Screening Levels (ESLs) listed in **Table 1**. Sample containers will be provided by California Laboratory Services, Rancho Cordova, CA. A list of sample containers and sample hold times are provided in **Table 2**.

RESIDENTIAL/AGRICULTURAL DUMP SITE

Three soil sample sets will be collected from Location C. The first sample set will be collected from soils within the central dump pit (due to safety concerns, no handling of debris will be conducted). The second sample set will be collected from soils adjacent to the opening of the 55-gallon drum lying on its side along the outer edge of the dump site. Thirdly, a baseline sample set will be collected from soils outside of the perimeter of the residential dump site. At each sample site, a sample of surface scrapings will be collected along with a sample of soils excavated to a depth of no less than 12 inches below the ground surface. Soil samples will be analyzed for heavy metals including Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Lead (Pb), Mercury (Hg), Selenium (Se), and Silver (Ag); total petroleum hydrocarbons as TPH-g and TPH-d, BTEX, and motor oil; and volatile organic compounds (VOCs). Sampling results will be compared to the USEPA PRGs and the CVRWQCB ESLs listed in **Table 1**. Soil sampling constituents are listed in **Table 1**. Sample containers will be provided by California Laboratory Services, Rancho Cordova, CA. A list of sample containers and sample hold times are provided in **Table 2**.

POTENTIAL AGRICULTURAL CHEMICAL SITE

Four soil sample sets will be collected from Location D. The first sample set will be taken from soils within the middle of the area where powder-type residue is visible. The second soil sample

set will be collected from soils adjacent to the area approximately 15 feet to the east (uphill) of the visible powder-type residue. A third soil sample will be collected adjacent to the area with visible powder-type residue approximately 15 feet to the west (downhill). The fourth soil sample will be taken inside the cultivated field located approximately 30 feet to the north of the area, across the adjacent dirt road. Each of the sample sets will consist of a sample from surface scrapings and a sample from soils excavated to a depth of no less than 12 inches below the soils surface. Soil samples will be analyzed for chlorinated pesticides including: 4,4'-DDE, 4,4'-DDT, 4,4-DDD, Alpha Clordane, Aldrin, b-BHS, Dieldrin, Endosulfan, Endrin, g-BHC, g-Clordane, Heptachlor, Heptachlor Epoxide, Methoxychlor, and Toxaphene. Sample results will be compared to the PRG's and CVRWQCB ESL's listed in **Table 1**. Soil sampling constituents are listed in **Table 1**. Sample containers will be provided by California Laboratory Services, Rancho Cordova, CA. A list of sample containers and hold times are provided in **Table 2**.

2.2 SAMPLE HANDLING AND TRANSPORT

Samples will be handled with nitrile gloves at all times to prevent cross contamination. Samples will be labeled with distinct sample identifying numbers, collection time and date, analysis, preservative, and project location. Samples will be stored on ice in a cooler until the laboratory accepts custody of the samples. Samples will be hand delivered to the laboratory the day the samples are collected.

TABLE 1
Sampling Constituents

Constituent	EPA Analytical Method	Laboratory Method Detection Limit (MDL) ug/kg[1]	Residential RWQCB ESLs[2] ug/kg	United States EPA Residential PRGs[3] ug/kg
Chlorinated Pesticides				
4,4'-DDE[4]	8081A	1.6	1700	1400
4,4'-DDT[5]	8081A	4.0	1700	1700
4,4-DDD[6]	8081A	1.8	2400	2000
Alpha Chlordane	8081A	2.1	440	NA
Aldrin	8081A	1.4	32	29
b-BHC	8081A	1.0	NA	7,300
Dieldrin	8081A	1.1	2.3	110*
Endosulfan	8081A	2.0	4.6	370000
Endrin	8081A	1.1	0.65	18000
g-BHC (Lindane)	8081A	0.9	440	NA
g-Chlordane	8081A	2.1	440	1,600*
Heptachlor	8081A	1.1	13	110*
Heptachlor Epoxide	8081A	1.1	14	53*
Methoxychlor	8081A	1.4	19 mg/kg[7]	310 mg/kg
Toxaphene	8081A	5.8	0.42	440
Petroleum Hydrocarbons				
Diesel Fuel	8015B	646	83000	NA
Gasoline	8015B	33	83000	39000

Constituent	EPA Analytical Method	Laboratory Method Detection Limit (MDL) ug/kg[1]	Residential RWQCB ESLs[2] ug/kg	United States EPA Residential PRGs[3] ug/kg
Motor Oil	8015B	3510	NA	NA
BTEX				
Benzene	8015/8021B	0.50	NA	110
Ethylbenzene	8015/8021B	1.61	NA	5,700
MTBE	8015/8021B	0.89	NA	39,000
Toluene	8015/8021B	1.44	2900	5000 mg/kg
Xylenes	8015/8021B	5.63	2300	600 mg/kg
TCLP Heavy Metals (RCRA-8)				
Arsenic (As)	6010/7000	.033 ug/L[8]	390	5000
Barium (Ba)	6010/7000	.071 ug/L	750 mg/kg	100000
Cadmium (Cd)	6010/7000	.040 ug/L	12000	1000
Chromium (Cr)	6010/7000	0.39 ug/L	1000 mg/kg	5000
Lead (Pb)	6010/7000	0.15 ug/L	80 mg/kg	5000
Mercury (Hg)	HG_1631E[9]	0.11 ug/L	6700	200
Selenium (Se)	6010/7000	0.46 ug/L	10000	1000
Silver (Ag)	6010/7000	0.30 ug/L	20000	5000
GC/MS VOCs	624/8260B[10]			

Notes:
[1] Microgram per kilogram (parts per billion)
[2] ESL are shallow soil screening levels for soil that are less than 3 meters bgs considering a commercial/industrial land use where groundwater **is** a current or potential drinking water source.
[3] USEPA Preliminary Remediation Goal; Soil Screening Levels.
[4] Dichlorodiphenyldichloroethylene
[5] Dichlorodiphenyltrichloroethane
[6] Dichlorodiphenyldichloroethane
[7] Milligrams per kilogram
[8] Micrograms per Liter
[9] Weck Labs, 2015
[10] A list of the VOC compounds that can be determined by this method are found in **Attachment A**.
[*] California Environmental Protection Agency Modified Screening Level

TABLE 2
Sample Containers

Constituent	Size	Type	Preservative	Hold Time
TPH[1] Diesel / Motor oil	8-ounce jar	Glass	Cold	14 days
TPG Gasoline / BTEX[2]	4 ounce jar	Glass	Cold	14 days
Chlorinated Pesticides	4 ounce jar	Glass	Cold	14 days
Heavy Metals[3]	8-ounce jar	Glass	Cold	14-28 days
VOCs[4]	40mL VOA vile	Glass	Cold	14-28 days

Notes:
[1] Total Petroleum Hydrocarbons
[2] Benzene, Toluene, Ethylbenzene, Xylenes
[3] Including As, Ba, Cd, Cr, Pb, Hg, Se, and Ag.
[4] Volatile Organic Compounds

2.3 CHAIN OF CUSTODY

Samples will be handled following strict Chain of Custody (COC) protocols. The COC document identifies the sample identification number, sampling technician, date, time and location of sample collection, analyses requested, preservatives used in the samples, turn-around-times, and contact information for the laboratory reports. The COC document provides the ownership information of the samples handled during transportation from the sampling site to the laboratory. The laboratory COC is carbon-copied to provide one copy for the lab, the lab file, the original, and the field personnel. The field personnel delivering the samples to the laboratory will assume COC responsibility. This person will sign the COC over to the laboratory for custody transfer when samples are delivered.

2.4 HEALTH AND SAFETY

The sampling areas are open and there are potential safety issues to sampling analysts. Potential on-site safety issues include heat exhaustion/dehydration, potential injuries from using hand shovels, injuries from scattered abandoned metal debris, chemical exposure, wildlife interactions, and muscle injuries from improper lifting. Site health and safety precautions will include an on-site health and safety tailgate meeting that will identify potential onsite hazards, sampling locations, areas considered off limits, location of first aid kits and drinking water, and a map and locations of the nearest emergency medical services (**Figure 2**).

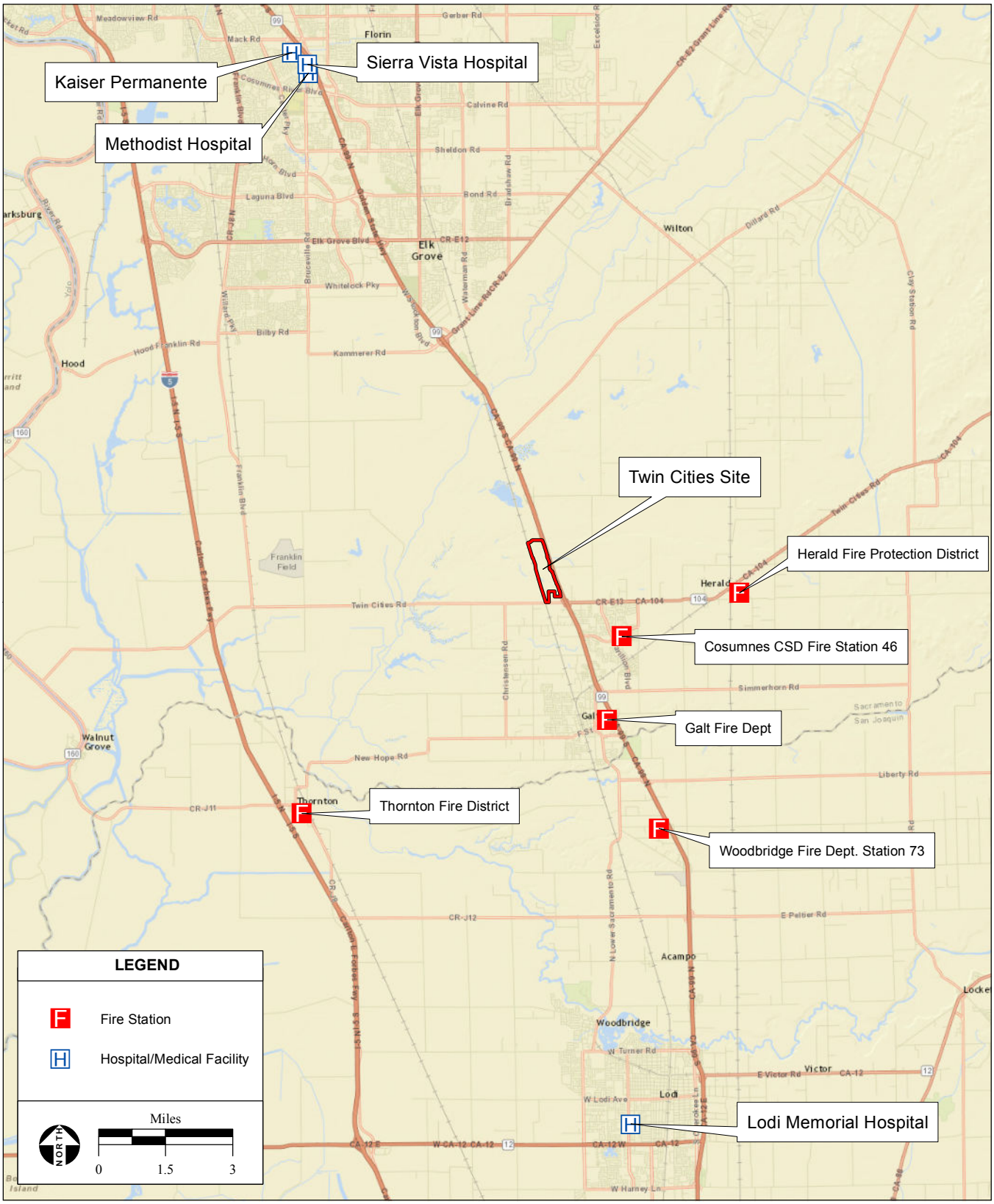
There is always the potential for discovery of previously unidentified chemicals. Any potential chemicals found during sampling activities will be left in place. At no time will AES employees attempt to remove or identify potential chemicals that were left on-site.

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all sampling reports will be prepared under the direct supervision of a registered Professional Engineer or Geologist and signed by that registered professional.

3.0 LIMITED PHASE II REPORT

A Limited Phase II ESA will be prepared after receipt and review of laboratory analytical reports. A report of findings within the Limited Phase II ESA will include the following:

- Results of soil sampling, sampling locations that were marked in the field with a GPS unit.
- A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the soil sampling. The narrative will be supported by the certified laboratory report.



SOURCE: ESRI Data, 2015; AES, 2015

Figure 2
Locations of Nearest Emergency Medical Services

- A narrative discussion of the analytical results for all sampling locations with reference to summary data tables and laboratory report. Results will be compared to the CVRWQCB ESLs and USEPA PRGs for residential soils.
- A scaled map showing relevant structures and features of the Subject Property, the locations of any potential problem areas regarding hazardous materials.

4.0 REFERENCES

Analytical Environmental Services, 2015. Phase I Environmental Site Assessment Twin Cities Site. January 2015.

BIA, 2015. Phase I Environmental Site Assessment Twin Cities Site. April 24, 2015.

CVRWQCB, 2015. Central Valley Regional Water Quality Control Board. Environmental Screening Levels (ESLs) for soil less than three meters (approximately ten feet) below ground surface.

Pellandini, Jim, 2015. Current Resident. Phone conversation on June 2, 2015 regarding pesticide and fertilizer use and mixing and June 15, 2015 regarding the powder residue.

Weck Labs, 2015. Weck Laboratories Inc., Method Reporting Limits 2015. Available online at: http://www.wecklabs.com/Resources/MethodReportingLimits/Metals.aspx. Accessed June 10, 2015.